REMARKS

The Application has been carefully reviewed in light of the Office Action dated November 26, 2002 (Paper No. 5). Claims 1 to 20 are in the application, of which Claims 1, 18, and 19, the independent claims, have been amended herein. Reconsideration and further examination are respectfully requested.

Claims 1 to 19 have been rejected under 35 U.S.C. § 102(e) over U.S. Patent 6,333,950 (Karasawa).

According to the present invention, encoded data is packetized into a first data train by a packetizer, the length of which is controlled by the packetizer in accordance with at least a second data length. For example, the first data length can be controlled such that it is some multiple of the second data length so that when the first data train is encapsulated into the second data train, the amount of filler, or staff, data used to fill in the second data train can be minimized. By virtue of this arrangement, more efficient data transmission can be achieved.

Turning to the specific language of the claims, Claim 1 concerns a data processing apparatus comprising an input means for inputting data, which is compression-encoded by an encoding means. A feature of the apparatus is its first packetizing means that packetizes the encoded data into a first data train based on a first data length controlled by the first packetizing means in accordance with at least a second data length. A second packetizing means packetizes the first data train generated by the first packetizing means into a second data train on the basis of the second data length.

The Office Action states, at page 5, that:

> "Karasawa, col. 3, lines 1-10, col. 4, lines 10-65, discloses that a detection of the length of the first data train (first packetizing data) so that the fix length of the second data train (second packetizing data) can be processed or controlled in accordance with the result of the length supplied by the packetizer 102...."

The processing of PES and TS packets in Karasawa is not seen to teach or to suggest the claimed features of the present invention. More particularly, Karasawa is not seen to teach or to suggest a packetizing means packetizing encoded data into a first data train on the basis of a first data length controlled by the first packetizing means in accordance with at least a second data length, the second data length being used by a second packetizing means in packetizing the first data train into a second data train.

Karasawa is seen provide for the efficient insertion of a PCR into TS packets by buffering the PCR value and the PES packet that is to be encapsulated into TS packets. Referring to Figure 5 and col. 4, lines 10 to 65, Karasawa describes a packetizing means 102 generating a packet from data encoded by encoder 101. The packet generated by packetizer 102 is stored in PES buffer 104 and the length of the generated PES packet is determined by PES_packet_length detector 103. A transmission time for a PCR is determined by PCR timer 107, and a PCR counter value is stored in buffer 106. To generate a payload portion of a TS packet 184 bytes in length, Karasawa describes extracting a portion of the PES packet stored in buffer 104 up to 184 bytes. See block S205 of Figure 7. In a case that the contents of the PCR buffer 106 are to be added to the TS payload and more than 184 bytes of the PES packet remain in buffer 104, less than 184

bytes of the PES packet are retrieved from buffer 104 and the contents of PCR buffer 106 are retrieved to generate the TS payload. See blocks S209 and S219 of Figure 7. In a case that the contents of buffers 104 and 106 are not 184 bytes in length, filler, or stuff, data is inserted into the TS payload to ensure that the payload is 184 bytes in length.

Accordingly, packetizer 102 of Karasawa is not seen to control a first data length in accordance with a second data length or to packetize encoded data on the basis of the first data length. Karasawa's packetizer 102 is instead seen to generate a PES packet, the length of which is determined after the PES packet has been generated by packetizer 102. Buffers 104 and 106 are not seen to be a packetizing means for packetizing data. Packetizer 109 generates a TS packet having a fixed length of 184 bytes regardless of the length of the PES packet generated by packetizer 203 or the PCR counter value.

Thus, nothing in Karasawa is seen to teach or to suggest a packetizing means packetizing encoded data into a first data train on the basis of a first data length controlled by the first packetizing means in accordance with at least a second data length, the second data length being used by a second packetizing means in packetizing the first data train into a second data train.

Accordingly, Claim 1 is believed to be patentable over the applied art. In addition, Claims 18 and 19 are also believed to be patentable for at least the same reasons.

In view of the foregoing, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. (Amended) A data processing apparatus comprising:

a) input means for inputting data;

b) encoding means for compression-encoding the data;

c) first packetizing means for packetizing the data encoded by said encoding means into a first data train on a basis of a first data length, said first packetizing means controlling the first data length in accordance with at least a second data length; and

d) [control means for controlling the first data length of packetizing by said first packetizing means in accordance with at least a second data length; and

e)] second packetizing means for packetizing the first data train generated by said first packetizing means into a second data train on a basis of the second data length.

18. (Amended) A data processing method comprising the steps of:

inputting data;

compression-encoding the data;

packetizing the encoded data into a first data train on a basis of a first data length, said packetizing step controlling the first data length in accordance with at least a second data length; and

[controlling the first data length of packetizing at said packetizing step in accordance with in least a second data length; and]

packetizing the generated first data train into a second data train on a basis of the second data length.

19. (Amended) A computer readable storage medium storing an image processing program, the program comprising:

an input step of inputting data;

an encoding step of compression-encoding the data;

a first packetizing step of packetizing the data encoded in said encoding step into a first data train on a basis of a first data length, said first packetizing step controlling the first data length in accordance with at least a second data length; and

[a control step of controlling the first data length of packetizing in said first packetizing step inn accordance with at least a second data length; and]

a second packetizing step of packetizing the first data train generated in said first packetizing step into a second data train on a basis of the second data length.